For more information and technical assistance contact:

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KR52

K-Resin® Styrene-Butadiene Copolymers (SBC)

Customer Benefits

- Excellent Optical Properties
- Good Stiffness
- Excellent Printability
- Up to 80% Shrinkage at 100°C

Typical Applications

- Shrink Sleeve Labels
- Multi-layer Films
- Tamper Evident Bands
- Roll-Fed Labels

Nominal Physical Properties(1)	English	SI	Test Method (ASTM)
Specific Gravity	1.01 g/cc	1.01 g/cc	ASTM D792
Melt Flow Rate, 200°C / 5 kg	9.0 g/10 min	9.0 g/10 min	ASTM D1238
Vicat Softening Point(2)	142°F	60°C	ASTM D1525
Haze	4 %	4 %	ASTM D1003
Gloss	145 %	145 %	ASTM D523
Puncture	27 in lb	3 J	ASTM D3763
Coefficient of Friction, Kinetic	0.25	0.25	ASTM D1894
Oxygen Gas Transmission Rate	210 cc mil/100in^2 24 hr	85 cc mm/m^2 24 hr	ASTM D3985
Moisture Vapor Transmission Rate	6 g mil/100in^2 24 hr	2 g mm/m^2 24 hr	ASTM F1249

Nominal Physical Properties(1)	English	SI	Test Method (ASTM)
Elmendorf Tear MD / TD	95 g / 75 g	95 g / 75 g	ASTM D1922
Tensile Yield Strength MD	4,400 psi	30 MPa	ASTM D882
Tensile Yield Strength TD	6,500 psi	45 MPa	ASTM D882
Tensile Break Strength MD	2,900 psi	20 MPa	ASTM D882
Tensile Break Strength TD	13,100 psi	90 MPa	ASTM D882
Elongation MD / TD	260 % / 80%	260 % / 80%	ASTM D882
Secant Modulus, 1% MD	160,000 psi	1,100 MPa	ASTM D882
Secant Modulus, 1% TD	232,000 psi	1,600 MPa	ASTM D882

(1) Typical cast film properties with 2% impact polystyrene, 2 mil (0.05 mm) (10 mil cast film oriented/tentered 5:1 in the Transverse Direction). The nominal properties herein are typical of the product but do not reflect normal testing variance and therefore, should not be used for specification purposed.

(2) Injection Molded Specimen.

MEETS THESE IMPORTANT SPECIFICATIONS

- K-Resin® SBC grade KR52, as shipped by Chevron Phillips Chemical Company LP, meets the specifications of the United States FDA Food Packaging Regulation 21 CFR 177.1640 (polystyrene and rubber modified polystyrene). There are no regulatory food type or temperature restrictions on this resin.
- K-Resin® SBC grade KR52 is produced in an ISO 9001:2008 certified plant.
- Commission Regulation (EU) No. 10/2011 and all its amendments.

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